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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,780	07/24/2001	Taketoshi Nakano	70840-56281	3887
21874	7590	05/18/2005	EXAMINER	
EDWARDS & ANGELL, LLP			LESPERANCE, JEAN E	
P.O. BOX 55874			ART UNIT	
BOSTON, MA 02205			PAPER NUMBER	
			2674	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/911,780

Applicant(s)

NAKANO ET AL.

Examiner

Jean E Lesperance

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/28/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. The amendment filed on 3/28/2005 is entered and claims 1 to 8 are pending.
2. The allowable subject matter of claims 1 to 4 is withdrawn from consideration.

Drawings

3. Figure 5, 6 and 7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "the signal circuit" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

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number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, in independent claim 8, the limitation "a signal circuit" is not described in the specification. Correction is required.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, in independent claim 8, the limitation "a signal circuit" is not clear. The examiner does not understand what the applicant means by a signal circuit. Is it a circuit with input or output signal in it? Correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102 (b) as being unpatentable over U.S. Patent # 6,211,849 ("Sasaki et al.).

Regarding claim 1, Sasaki et al. teach a plurality of column and row electrode driving circuits connected in series (see Fig.2, 23 and 24), each of the plurality of column electrode driving circuits (Fig.4 , 1) comprising; a data input section Fig.4 (4); a control logic section Fig.4 (CT) where a timing signal is originated; the control logic CT includes a shift register circuit for sequentially selecting (column 5, lines 12 and 13) corresponding to a selection section; a data output Fig.4 (8), where data is transferred

from column electrode driving circuits in a cascading manner where the output of one column electrode driving circuit is the input of another (see fig.3).

Regarding claim 2, Sasaki et al. teach a data input section of the second column electrode driving circuit Fig.4 (4) includes an external data port and transferred data port Fig.4 (2), and a control logic section Fig.4 (CT) where a timing control section is originated.

Regarding claim 3, Sasaki et al. teach a data input section of the second column electrode driving circuit Fig.4 (4) which receives the signals CLK, DATA and CNT, and a control logic section Fig.4 (CT) where a timing control section is originated.

Regarding claim 4, Sasaki et al. teach a display panel Fig.2 (22); a plurality of column driving circuits are connected in series Fig.2 (23); and a plurality of row electrode driving circuits are connected in series Fig.2 (24) which are adjacent to the column electrode driving circuits, wherein; the external control data signal Fig.4 (CLK, DATA and CNT) is input to the data input section Fig.4 (4), which is transferred to the next column electrode driving circuit in a cascading manner (see Fig.2), and a control logic section Fig.4 (CT) where the timing control section is originated.

Regarding claim 5, Sasaki et al. teach a display panel Fig.2 (22); a plurality of column driving circuits are connected in series Fig.2 (23); and a plurality of row electrode driving circuits are connected in series Fig.2 (24) which are adjacent to the column electrode driving circuits, wherein; a control logic section Fig.4 (CT) where a control data signal and a timing signal for controlling an operation are originated Fig.4

(CT), the output data signal (CLK, DATA and CNT) is transferred to the next column electrode driving since the signal goes in cascading manner.

Regarding claim 6, Sasaki et al. teach a display panel Fig.2 (22); a plurality of column driving circuits are connected in series Fig.2 (23); and a plurality of row electrode driving circuits are connected in series Fig.2 (24) which are adjacent to the column electrode driving circuits, wherein; each of the plurality of column electrode driving circuits is mounted in a tape carrier package Fig.13 (9) interpreted as a array substrate; a first column electrode Fig.4 (1) which is closest to the row electrode driving circuit (see Fig.2 (23), a control logic section Fig.4 (CT) where the timing signal for controlling an operation timing is originated, a timing signal Fig.4 (CLK, DATA and CNT) is output from the column electrode driving circuit Fig.4 (1) by using different line portions as seen in Figure 13 (10) to the next column electrode driving circuit .

Regarding claim 7, Sasaki et al. teach a display panel Fig.2 (22); a plurality of column driving circuits are connected in series Fig.2 (23); and a plurality of row electrode driving circuits are connected in series Fig.2 (24) which are adjacent to the column electrode driving circuits, wherein a control logic section Fig.4 (CT) where the timing signal for controlling an operation timing is originated, a timing signal Fig.4 (CLK, DATA and CNT) is output from the column electrode driving circuit Fig.4 (1) by using different line portions as seen in Figure 13 (10) to the next column electrode driving circuit.

Regarding claim 8, Sasaki et al. teach a display panel Fig.2 (22); a plurality of column driving circuits are connected in series Fig.2 (23); and a plurality of row

electrode driving circuits are connected in series Fig.2 (24) which are adjacent to the column electrode driving circuits, wherein; each of the plurality of column electrode driving circuits is mounted in a tape carrier package Fig.13 (9) interpreted as a array substrate; a first column electrode Fig.4 (1) which is closest to the row electrode driving circuit (see Fig.2 (23), a control logic section Fig.4 (CT) where the timing signal for controlling an operation timing is originated, a timing signal Fig.4 (CLK, DATA and CNT) is output from the column electrode driving circuit Fig.4 (1) by using different line portions as seen in Figure 13 (10) to the next column electrode driving circuit . Given the broadest interpretation, the examiner assumes that the latch circuit Fig.4 (5) corresponding to the signal circuit.

Response to Amendment

7. Applicant's arguments filed 3/28/2005 have been fully considered and they are persuasive for all the claims 1 to 8. The finality of the last office action is withdrawn and another one is provided above with a newly found pertinent prior art.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:00AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

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supervisor, Patrick Edouard, can be reached on (571) 272-7603.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance



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Date 5/14/2005



**PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER**